EU Danube Economies vs the Trap of Europe 2020 Strategy

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Abstract: The paper deals with the analysis of the EU Danube economies according to the five targets of Europe 2020 Strategy. The analysis is built on three levels: a comparative analysis during 2007-2013, a forecast until 2020 and a dispersion analysis in order to highlight the economic disparities in 2020. The analysis and the paper's conclusions are supported by the latest official statistical data, pertinent tables and diagrams.

Keywords: economic disparities; economic clusters; economic forecasting

JEL Classification: C32; E61; F15; F63; R11.

1. Introduction

The Europe 2020 strategy tried to achieve high targets for the Member States. The EU Danube countries faced to high economic challenges and started to recover slowly, excepting Germany and Austria. The result is the increase of the economic disparities across the Danube economies.

2. Related Work

According to EU 2020 Strategy, labor analysis becomes very important. Moreover, labor mobility supports the employment and unemployment rates' disparities across the Member States (Arpaia et.al., 2014). The impact of the global crisis on EU economy imposed new macroeconomic policies connected to employment protection legislation, unemployment benefits and wage setting. All these polices had different results in each Member State (Turrini et al., 2014).

The European labor market deteriorated after the global crisis and created the environment able to develop cyclical and structural unemployment. The dimension of this phenomenon was different in each EU country. As a result, the solution for this challenge has to be implemented at national level (Kiss at.al., 2014).

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R&D represents a distinct target for Europe 2020 Strategy. The implementation of the European Research Area supported the economic development in the EU. The best solution seems to be a R&D policy in a multi-level governance system (Edler et al., 2003).

Better cooperation in R&D activities can lead to improve the economic environment under R&D networks (Bernard et al., 2007). The importance of the European Funds in financing R&D cooperation across the EU is highlighted in connection to thematic and geographical proximity (Paiera & Scherngella, 2011).

The European Environment Agency (EEA) studied the air pollution in the European industry, in order to quantify the damage cost by pollutants. Even that this cost decreased, compared to 2009, its value was 189 billion Euros in 2012 (EEA, 2014). The formal, non-formal and informal education represents an essential goal of the Strategy. As a result, the initial Strategy for Education for Sustainable Development, adopted in 2005, was updated in 2009 (AEGEE Europe, 2013).

A distinct target of the Strategy is poverty and social exclusion. There is a direct connection between the measures of poverty, deprivation and low work intensity (Lelkes & Zolyomi, 2011).

Nowadays, any household with an income less than 60% of the median equivalized household income in a country is at risk of poverty (Haffner et al., 2014).

3. Macro Analysis under Europe 2020 Strategy's Goals

According to Europe 2020 Strategy, 75% of the 20-64 year-olds has to be employed until 2020. Only two EU Danube countries (Germany and Austria) succeeded to achieve this target in 2013 (see Table 1).

Table 1. Employment rate (%)

No.	Country	2007	2008	2009	2010	2011	2012	2013	2020
1	Bulgaria	68.4	70.7	68.8	65.4	62.9	63.0	63.5	66.1
2	Germany	72.9	74.0	74.2	74.9	76.5	76.9	77.3	82.8
3	Croatia	62.3	62.9	61.7	58.7	57.0	55.4	57.2	46.8
4	Hungary	62.6	61.9	60.5	60.4	60.7	62.1	63.2	62.5
5	Austria	74.4	75.1	74.7	74.9	75.2	75.6	75.5	76.8
6	Romania	64.4	64.4	63.5	63.3	62.8	63.8	63.9	62.5
7	Slovakia	67.2	68.8	66.4	64.6	65.0	65.1	65.0	60.5

Source:
http://ec.europa.eu/eurostat/tgm/printTable.do?tab=table&plugin=1&language=en

The forecasting procedure connected to the employment rate leads to the same conclusion for 2020 (see Figure 1).

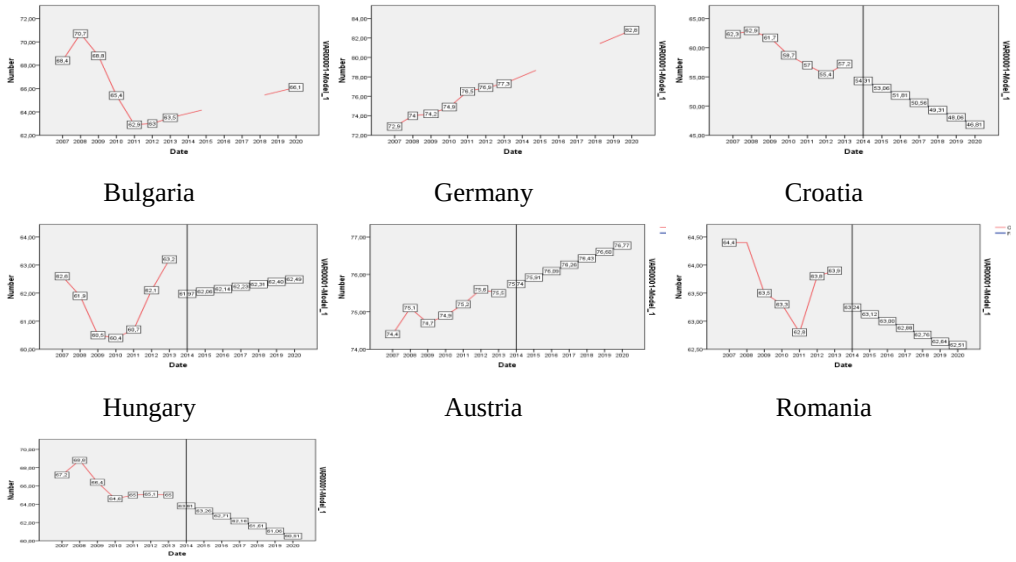

Figure 1. Employment rate's forecast
Source: Personal contribution using IBM-SPSS software

Data from Table 1 support the idea of grouping the Danube countries into two clusters. The first cluster covers Germany and Austria (which are able to achieve the Strategy's target), while the second cluster covers the other five countries. A distinct target of the Europe 2020 Strategy is to invest 3% of GDP in R&D activities. This target created great disparities across the Danube countries (see Table 2).

Table 2. Gross domestic expenditure on R&D (% of GDP)

No.	Country	2007	2008	2009	2010	2011	2012	2013	2020
1	Bulgaria	0.44	0.46	0.51	0.59	0.55	0.62	0.65	0.90
2	Germany	2.45	2.60	2.73	2.72	2.80	2.88	2.94	3.48
3	Croatia	0.79	0.88	0.84	0.74	0.75	0.75	0.81	0.69
4	Hungary	0.97	0.99	1.14	1.15	1.20	1.27	1.41	1.85
5	Austria	2.43	2.59	2.61	2.74	2.68	2.81	2.81	3.26
6	Romania	0.52	0.57	0.46	0.45	0.49	0.48	0.39	0.29
7	Slovakia	0.45	0.46	0.47	0.62	0.67	0.81	0.83	1.34

Source:http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=t2020_20

According to data from Table 2 and Figure 2, the same two countries (Germany and Austria) will be able to achieve this new target in 2020. Romania will face to the worst situation in 2020.

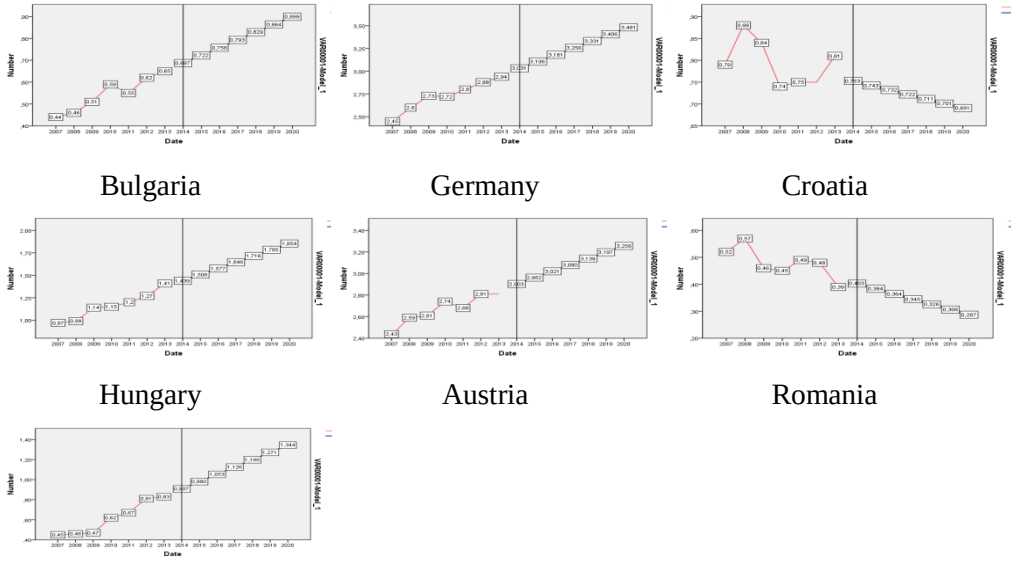

Figure 2. Gross domestic expenditure on R&D's forecast

Source: Personal contribution using IBM-SPSS software

Europe 2020 Strategy proposed to decrease the greenhouse gas emissions by at least 20% compared to 1990. The results of such measure are presented in Table 3.

Table 3. Greenhouse gas emissions (1990=100%)

No.	Country	2007	2008	2009	2010	2011	2012	2013	2020
1	Bulgaria	62.79	61.43	52.97	55.33	60.54	56.02	56.02	49.46
2	Germany	79.51	79.79	74.40	77.06	75.58	76.55	76.55	72.00
3	Croatia	102.17	98.10	91.75	90.26	89.21	82.65	82.65	58.11
4	Hungary	77.87	75.58	68.99	69.66	68.03	63.70	63.70	45.64
5	Austria	112.89	112.79	103.90	110.00	107.56	104.02	104.02	93.42
6	Romania	57.64	56.46	48.44	46.81	49.08	47.96	47.96	39.41
7	Slovakia	66.19	67.04	61.13	62.06	61.13	58.40	58.40	47.53

Source: http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=t2020_30

The data from 2013 talk about good results for the EU Danube countries, excepting

Austria and Croatia. But the greenhouse gas emissions' decrease can be the result of economic contraction. Only Austria will face to high emission rate in 2020 (see Figure 3).

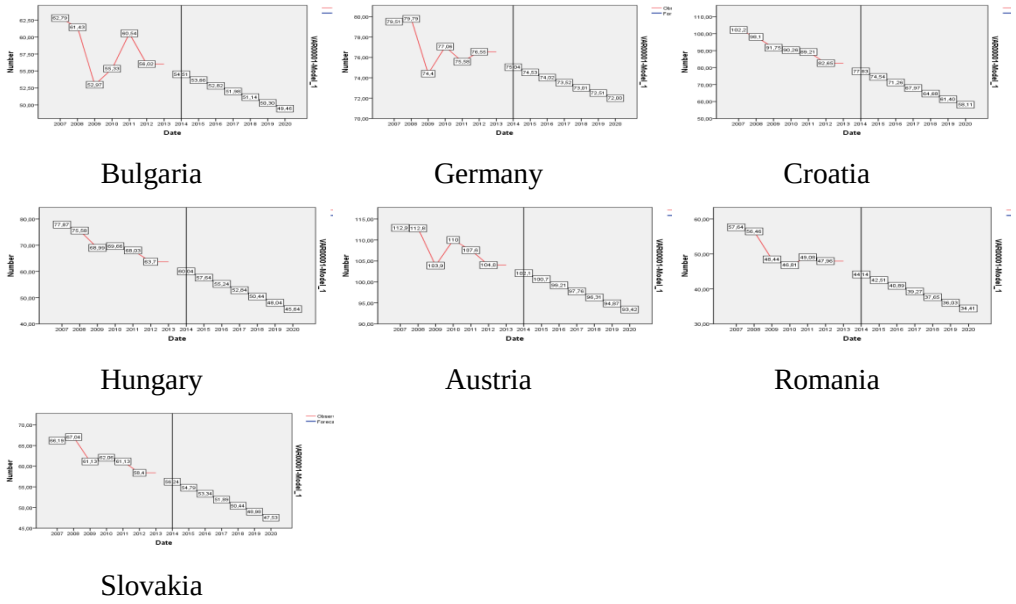

Figure 3. Greenhouse gas emissions' forecast

Source: Personal contribution using IBM-SPSS software

According to education's target of increasing the share of the population aged 30–34 having completed tertiary from 31% to at least 40% until 2020, was realised Table 4.

Table 4. Tertiary educational attainment (%)

No.	Country	2007	2008	2009	2010	2011	2012	2013	2020
1	Bulgaria	26.0	27.1	27.9	27.7	27.3	26.9	29.4	30.8
2	Germany	26.5	27.7	29.4	29.8	30.7	32.0	33.1	40.5
3	Croatia	16.7	18.5	20.6	24.3	24.5	23.7	25.6	36.6
4	Hungary	20.1	22.4	23.9	25.7	28.1	29.9	31.9	45.5
5	Austria	21.1	22.2	23.5	23.5	23.8	26.3	27.3	33.6
5	Romania	13.9	16.0	16.8	18.1	20.4	21.8	22.8	33.5
6	Slovakia	14.8	15.8	17.6	22.1	23.2	23.7	26.9	41.2

Source: http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=t2020_41

Only Germany, Hungary and Slovakia will be able to achieve this target in 2020 (see Figure 4).

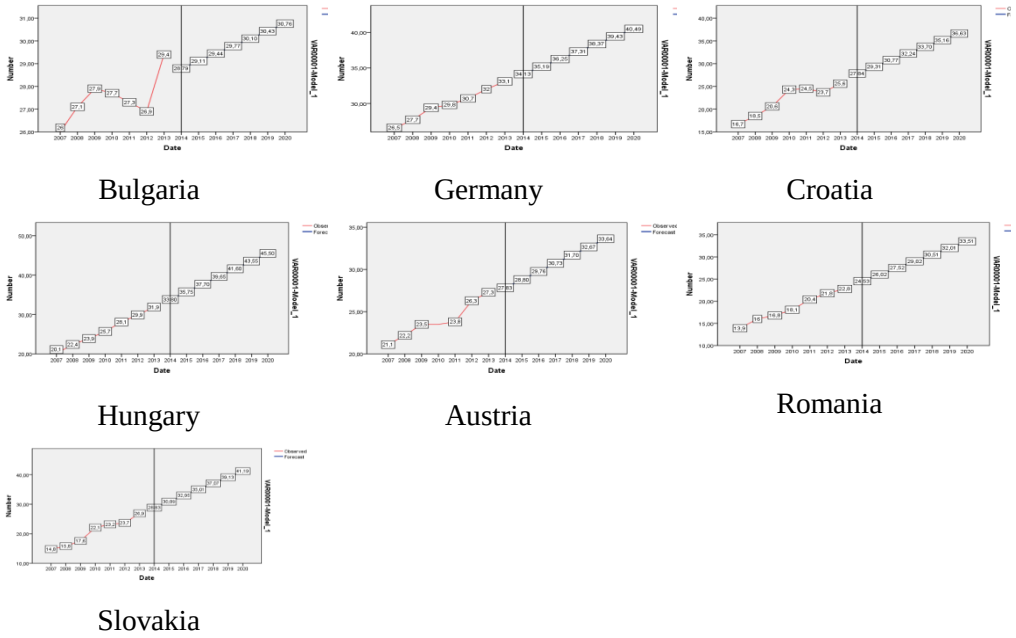

Figure 4. Tertiary educational attainment's forecast

Source: Personal contribution using IBM-SPSS software

The Strategy focused on decreasing the number of Europeans living below national poverty lines by 25%.

Table 5. People at risk of poverty (% of total population)

No.	Country	2007	2008	2009	2010	2011	2012	2013	2020
1	Bulgaria	60.7	44.8	46.2	49.2	49.1	49.3	48.0	40.3
2	Germany	20.6	20.1	20.0	19.7	19.9	19.6	20.3	19.3
3	Croatia	31.1	31.1	31.1	31.1	32.6	32.6	29.9	31.4
4	Hungary	29.4	28.2	29.6	29.9	31.0	32.4	33.5	38.5
5	Austria	16.7	20.6	19.1	18.9	19.2	18.5	18.8	19.6
6	Romania	45.9	44.2	43.1	41.4	40.3	41.7	40.4	33.7
7	Slovakia	21.3	20.6	19.6	20.6	20.6	20.5	19.8	19.1

Source:http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=t2020_50

Germany, Austria and Slovakia will achieve the target in 2020 (see Figure 5).

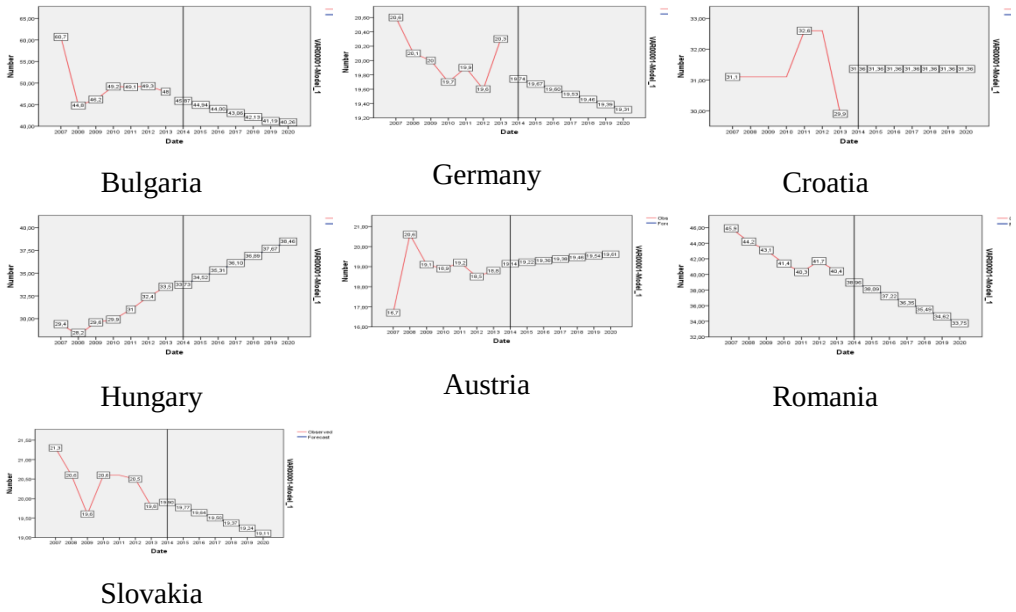

Figure 5. People at risk of poverty's forecast

Source: Personal contribution using IBM-SPSS software

4. Europe 2020 Strategy vs Sisparities' Increase

The above analysis led to not optimistic conclusions. Moreover, the EU Danube countries will face to great disparities related to one or more of the Europe 2020 Strategy's targets. According to the employment rate, the disparities between the Danube countries increased and will be greater in 2020 (see Figure 6).

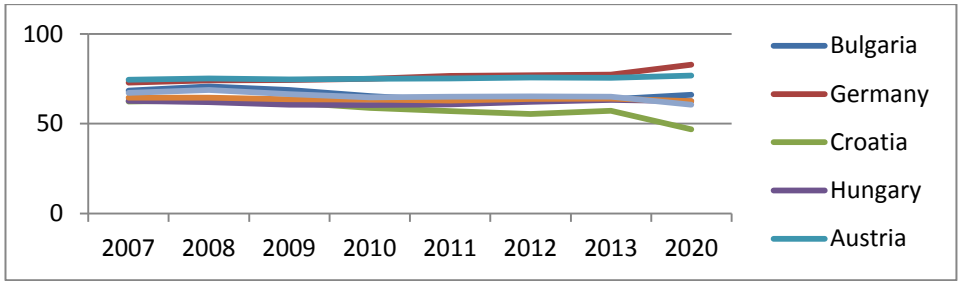

Figure 6. Employment rate's disparities (%)

Source: Personal contribution

The gross domestic expenditure on R&D has the same trend which supports the disparities' increase, even in 2020 (see Figure 7).

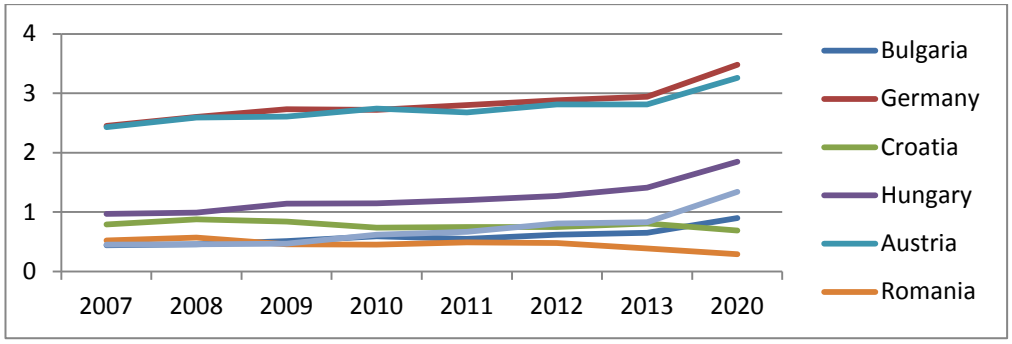

Figure 7. Gross domestic expenditure on R&D' disparities (% of GDP)

Source: Personal contribution

The greenhouse gas emissions have an atypical trend connected to the economic contraction under the impact of the global crisis (see Figure 8).

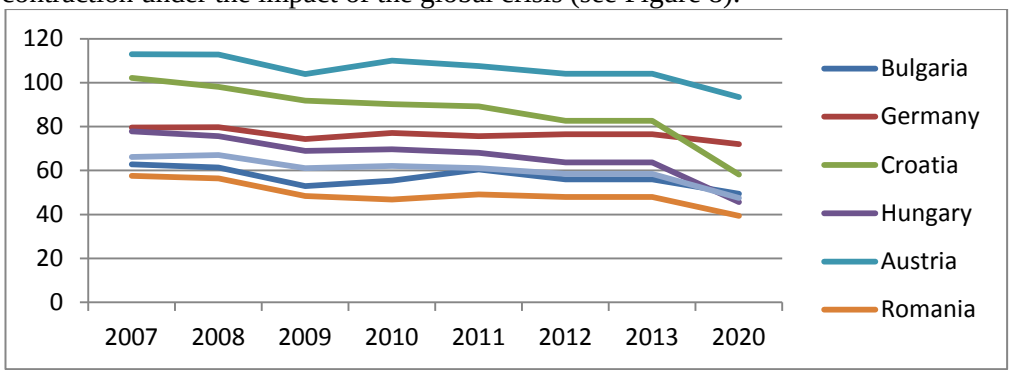

Figure 8. Greenhouse gas emissions (1990=100%)

Source: Personal contribution

The trend of the tertiary educational attainment is presented in Figure 9. It represents the best situation in 2020.

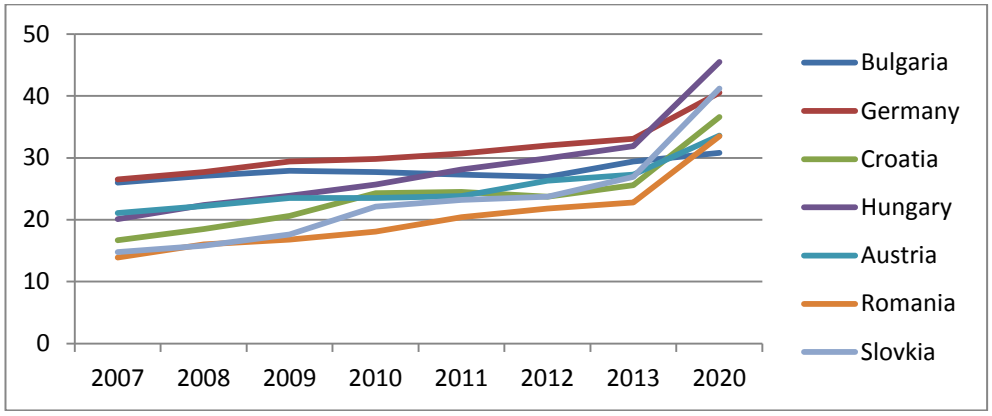

Figure 9. Tertiary educational attainment (%)

Source: Personal contribution

Finally, the people at risk of poverty are presented in Figure 10. This is the second Strategy's target with positive trend.

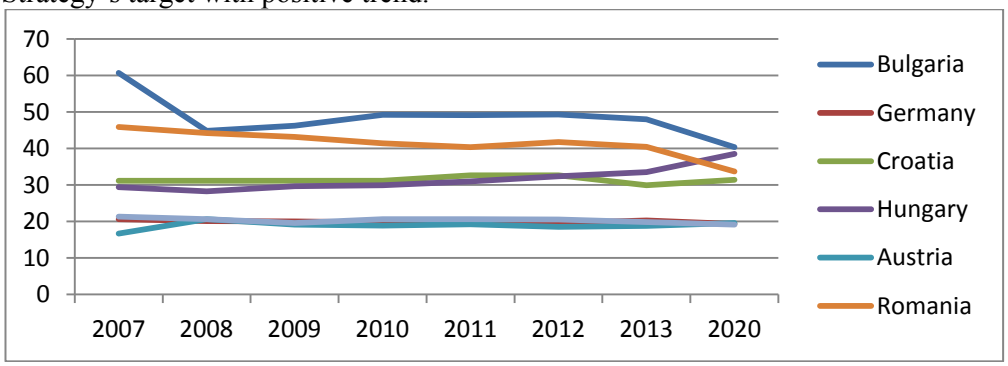

Figure 10. People at risk of poverty (% of total population)

Source: Personal contribution

As a result, Europe 2020 Strategy is a far away target at least for 5 from the EU Danube countries. Moreover, the disparities between the EU Danube countries connected to the Strategy's targets will increase and will support the idea of analyzing them under a two clusters approach.

5. Acknowledgement

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